



# Campaign Impact Report

## Laolao Bay Pride Campaign

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## EXECUTIVE SUMMARY

On Saipan's east coast, Laolao Bay is one of the island's richest and most-used marine areas; Laolao Bay is a popular fishing and diving site among residents and tourists alike. Unfortunately, the coral reefs and the rest of the marine ecosystems in the bay, including sea turtle habitat, are suffering from extremely degraded water quality due to a variety of point source and non-point source pollution. The upland area of the watershed is a mix of residential lots, a golf course, and agricultural and other private land uses. As a result, the bay is subject to erosion and runoff pollution from unpaved roads, unpermitted development, land clearing, and agricultural practices. Heavy rain events exacerbate the problem as stormwater carries soil and pollutants into the bay. The surrounding watershed has consequently been the focus of various erosion control efforts.

In order to further reduce the threats of erosion and sedimentation, the Laolao Bay Pride Campaign worked to promote the adoption of erosion control practices, follow regulations, report other threats, and stop harmful land clearing activities. This has been achieved through a combination of social marketing including providing landowners and residents with a watershed guide, working closely with community groups, and school visits. Landowners and residents understand the important functions of a healthy watershed and the natural and anthropogenic activities that cause erosion that can send sediment run-off directly onto coral reefs.

Technical interventions such as holding an Erosion Control Training for landowners and residents on implementation of best management practices (BMPs) on private properties within the watersheds and developing a demonstration site, such as a rain garden installation at the local elementary school were also introduced to provide the community the skill set to ease the barriers to the adoption of erosion control practices.

In the end, the campaign's impact has been measured by a pre and post campaign survey (to measure changes in knowledge, attitude and behavior change), participation in activities, among a variety of qualitative data. This campaign is in collaboration with the San Vicente Elementary School, CNMI Forestry, Mariana Islands Nature Alliance, the Tasi Watch Rangers and the communities of San Vicente, Dan Dan, Kagman, and Laolao.

Furthermore, the Micro Five-O cohort has helped in every aspect of this campaign. We have all learned from each other what it takes to do grassroots conservation and enable community driven solutions for our region. We are small islands with big ideas. Our shared commitment to the Micronesia Challenge with our partners to conserve our marine and terrestrial resources by 2020, will lead the way for other island nations and build the power of pride in island conservation. We are one-One Micronesia.

## PART 1: INTRODUCTION & SITE DESCRIPTION

Laolao Bay Watershed is located on the island of Saipan in the Commonwealth of the Northern Mariana Islands (CNMI). The 466-mile long Mariana Island archipelago, which includes 14 islands within the CNMI, is located in the Western Pacific. Because of the relatively small size of the islands, all watersheds in the islands are considered coastal watersheds. Under CNMI law, the natural resource agencies (Coastal Resource Management Office, Division of Environmental Quality and Division of Fish and Wildlife) have regulatory jurisdiction over all lands of the Commonwealth. Laolao Bay is located on the south eastern side of the island of Saipan. Three watersheds have direct influence on the waters of Laolao Bay; Laolao, Dan Dan, and Kagman (Laolao Bay Management Plan, 2009).

Laolao watershed is 926 acres, Kagman watershed is 3,666 acres, and Dan Dan watershed is 1,517 acres. These three watersheds cover a total of 6,109 acres (Source: DEQ GIS Specialist & USGS Shed GIS layer).

Laolao Bay is one of Saipan's richest and most-used marine areas. The Laolao Bay Watershed drains into a bay containing a coral reef and is a very popular dive site with considerable year-round traffic from local residents and tourists with dive operators. Within the bay is a Sea Cucumber Sanctuary; collection of sea cucumbers is currently prohibited by law due to a moratorium.



The watersheds that drain to Laolao Bay contain the villages of Kagman, Dan Dan, and a small community within Laolao. According to natural resource manager and specialists in the CNMI, Laolao bay is heavily affected by land-based sources of pollution, such as bacteria from human and animal waste, nutrients from agricultural land use, nutrients and chemicals from urban land use, and sediments from unpaved roads or improper land clearing. The goal of our campaign is to positively affect the hearts and minds of our residents, to address practices on homeowners' properties which contribute significant amounts of sediment to the Laolao Bay Watershed. It is known that polluted runoff comes from sources beyond residential practices as well, including large developments, agricultural lands, and more, however this campaign focuses on residents and the community alone. It is envisioned that through collaborative community efforts with the involvement of the youth; larger and broader environmental challenges will then be easier to understand and addressed by our environmental organizations and the residents of Saipan.



## CAMPAIGN PLANNING & DESIGN

### Campaign Planning:

A framework for the adaptive management of the Pride campaign was then established, using a project-cycle approach. Working closely with campaign partners, 1) natural resources of interest and their current and desired status were identified; 2) critical threats likely to degrade these natural resources were classified and ranked; 3) social, economic, political and cultural factors contributing to the threats or representing opportunities to enhance the management of natural resources were recognized; and 4) strategies to reduce or eliminate threats and maintain, recover, or restore target resources were articulated. Through this process, campaign managers used tools and methodologies provided by Rare and the Conservation Measures Partnership and others to develop a campaign Conceptual Model, Results Chains, an overarching Theory of Change (customized from Rare's general Theory of Change), and SMART Objectives (Appendixes A, B, C, and D, respectively). Targets for anticipated change within the SMART Objectives were set in consultation with partners and regional experts based on the analysis of pre-campaign KAP and bio-physical surveys and the campaign's context. Within this framework, information, analysis, and experience gained during the implementation of planned activities would be used to: track progress, measure impact and results, learn, and adapt activities and management strategy throughout the life of the campaign and beyond.

From the above elements, two complementary strategies and work plans for social marketing and the associated "barrier removal" were developed.

While the overall planning of the campaign was particularly successful, it is also helpful to consider aspects that leave room for improvement. Although much planning and work went into ensuring that the campaign accomplished the goals set out at the beginning, qualitative research data collection did not progress as well as anticipated. With limited time in planning, it was difficult to gain participation from the target audience in our focus group discussion. Instead of hiring a PR firm to conduct the focus group discussion, I believe getting a key influencer in the community to plan and conduct the focus group discussion would have gained more participation from our target audience.

### Campaign Design:

The Laolao Bay Pride Campaign was designed using a mixture of background study, socio-economic and biological assessment, conservation planning, and social marketing research. Initial background investigation guided the production of a Site Summary and Research Plan document (Appendix E and F) that provided a synopsis of important features, characteristics, and considerations for the management of the chosen campaign site. This information combined with results from other qualitative methods, such as participant observation, Key Informant Interviews, in-depth interviews with the target audience and Focus Group Discussions, was used to help address the first seven of a Pride Campaign's "Eleven Most Important Research Questions" (Appendix G). Responses related to the first seven of these questions (see Questions 1-7) helped to narrow assumptions and aided in preparing of an initial socio-economic/household survey instrument that focused on quantifying pre-campaign levels of target audience Knowledge, Attitudes and Practice (referred to as a pre-campaign KAP Survey) in relation to the campaign topic (Appendix H). A pre-campaign Bio-physical Survey following methods commonly accepted within the region (Appendix I) was conducted within the campaign site, which provided

quantitative information on the pre-campaign condition of natural resources of concern. Collectively, the above information was used as inputs in designing an adaptive management strategy for achieving conservation results using the Conservation Measures Partnership's Open Standards for the Practice of Conservation.

The Laolao Bay Pride Campaign has laid a strong foundation for continued efforts. As this phase of the campaign comes to a close, it is by no means over. There is still much that needs to be done to help protect coral reefs and to carry out the campaign to its full potential. The following are recommendations for the next phase of the campaign.

1. **Focus time and energy on landowners.** This was one area, detailed carefully in the Theory of Change that still needs to see progress. One activity that was proposed as part of the campaign is holding more erosion control trainings. This would require partnering with technical experts, recruiting participants, and providing incentives.
2. **Continue partnership with MINA's Tasi-Watch Rangers to sustain impact of campaign monitoring and efforts.** To support the ongoing efforts in Laolao as spearheaded by the Laolao Bay Pride Campaign MINA will oversee the following activities:
  - Maintenance of new and existing plants in upland watershed and beach area
  - Tree planting as necessary and requested by campaign manager
  - Maintenance of sedimentation chambers

In order to accomplish these activities MINA's Tasi Watch Rangers will regularly visit the sites. The Rangers have significant experience conducting these activities.

3. **Keep the focus.** The campaign provided an opportunity to create a focused social marketing campaign. As much of the planning and hard work has been finished, it is now time to build upon the success and the framework that has been put in place.

### Social Marketing Design:

For the social marketing strategy, qualitative information and quantitative results from the initial KAP survey was used to identify and describe stakeholder groups, key influencers, and target audience(s). Initiating and sustaining long-term behavior change in the target audience is the campaign effort's ultimate goal. Analysis allowed for further characterization of the target audience's stage in the "behavior change continuum", as well target audience's current behaviors, preferences, motivations, and obstacles to adopting preferred behaviors. From this information, a detailed social marketing strategy was devised to support the campaign's objectives within its particular physical and social context. Site stakeholders and partners were consulted in the development of the basic components of the marketing strategy, including a plausible Benefits Exchange Proposition, a Target Audience Plan, a Community Mobilization Plan, a Key Influencer Plan, and campaign messaging including a Slogan and Call to Action (Appendixes J) A Creative Brief helped to communicate marketing fundamentals, including brand elements and the intended 'look and feel' of the campaign. Collectively these components assisted with selection, design, and placement of campaign materials and activities, including a

campaign Logo and Mascot. The creation of these materials and activities were summarized into a Social Marketing work plan with associated budget.

### **Barrier Removal Design:**

A separate but supportive strategy was contained within the campaign's Barrier Removal Plan. The identification of perceived barriers to behavior change and developing strategies for the reducing of these barriers is an important aspect of Rare's Social Marketing approach. Beginning with the campaign's Benefits Exchange Proposition, Campaign Managers developed activities intended to reduce barriers for behavior change, such as the provision of technical skills or incentives for initial participation. Through this process a barrier removal strategy along with activities was identified that would support specific barrier removal objectives and address additional management needs at the site.

The surrounding watershed has consequently been the focus of various erosion control and conservation efforts and campaigns. To augment and enhance ongoing projects, the Laolao Bay Pride Campaign is implementing technically focused activities, which provide tools for landowners and the broader community to support and undertake erosion control practices both on their own properties, or on publicly owned land.

As part of the campaign we have established a rain garden at San Vicente Elementary School (SVES) with the help of the SVES Young Farmers Club. The purpose of this garden is to serve as a demonstration site for how vegetation can be used to collect and slow down water flow for greater absorption into the soil, while adding to an area's aesthetics. The garden has received support from SVES as well as various community members. The rain garden, while an individual installation, creates a great opportunity to discuss greater erosion control issues within the watershed, and is an example of what individuals can do to get involved.

These activities were summarized in a Barrier Removal Operational Plan (aka BROP) and associated budget (Appendix K).

### **Monitoring**

Monitoring occurred at various levels and times throughout the campaign program. Monitoring of campaign implementation was possible through the tracking of activities and achievements against social marketing and barrier removal work plans and targets on a monthly and quarterly basis. The KAP Survey, Bio-physical Survey and MPA Management Effectiveness Assessment conducted in advance of campaign activities provided a baseline for a comprehensive set of indicators against which to measure change and campaign impact over time. Follow-on post-campaign KAP Survey was conducted close to within a year of campaign launch dates. Follow-on Bio-physical Survey is planned for late 2014. The last four of the campaign's "Eleven Most Important Questions" (see Questions 8-11) offer guidance for assessing the campaign's impact relative to the target audience, the effectiveness of barrier removal activities, the adoption of new behavior, the reduction of threat at the site, and conservation outcomes, closely following the campaign's overall Theory of Change. Contextual information and summary data related to all campaign indicators were contained within specifically formatted MS Excel worksheets that served as a Data Management Tool (DMT) and assisted with organization and storage of data and information, as well as in aiding with post-campaign and future longer-term analysis.

## Evaluation


The Campaign Manager, local partners, and regional experts convened to review campaign achievements, results, and likelihood of long-term outcomes. Marketing and Barrier Removal work plans provided the basis for comparisons of to what degree initial plans were implemented. Pre- and post-campaign indicators stored in the DMT were compared and triangulated with additional site information available. For those indicators for which post-campaign measurements were unavailable, such as bio-physical indicators, alternative supporting information was consulted and plans were made for the later analysis of currently absent data.

## PART 2: OUTCOME & IMPACT





This section focuses on the execution of the campaign and the results and impacted achieved.





### A. Campaign Technical Outcome:





*Purpose of section: captures the high-level quantitative and qualitative results of your campaign, with full details remaining in the Data Management Tool*

SITE-BASED QUANTITATIVE RESULTS FOR THE THEORY OF CHANGE					
Campaign Hypothesis according to Theory of Change Objectives		Baseline	Post-Campaign	Primary KAP Results	Secondary KAP and other results
CR	By June 2014, there will be a statistically significant increase in tree diameter from a baseline of 1.66cm	1.66cm	TBD	TBD	
CR	By June 2014, maintain low levels of barren areas in comparison to reference site from a baseline of 98.5%.	98.5%	TBD	TBD	
TR	By June 2014, there will be an increase of landowners who believe that erosion has decreased by a large amount over time from a baseline of 0.	Baseline started at zero	26%	TBD	
TR	By June 2014, report number of trees planted.  By June 2014, report amount of sediment collected.  By June 2014, report amount of sediment collected in silt fence.	Baseline at zero		TBD	391 trees planted 5 cubic yards of sediment collected. 15 cubic yards of sediment collected. .228 cubic yards of sediment collected from silt fence 155 gallons of sediment collected.
BC	By June 2014, there will be an increase from a baseline of 32% of landowners and residents who recognize the threat of	32%	78%	 46.0pp	There is a significant increase from 0.0% to 6.5% of landowners and



	sedimentation surrounding the watershed and in response implement erosion control practices (planting trees and shrubs).				residents of the Laolao, Kagman, and Dandan Watersheds who have participated in watershed restoration project in the last six months.
BC	By June 2014, there will be an increase from a baseline of 26.5% of landowners and residents who recognize the threat of sedimentation surrounding the watershed and in response implement erosion control practices (installing lawn alternatives like rain barrels and rain garden).	26.5%	64.7%	 38.2pp	
BC	By June 2014, landowners and residents that report illegal land clearing every time they see it occurring from a baseline of 1.9%.	1.9%	18.1%	 16.2pp	Question 14 of my Post KAP survey show a statistically significant increase from 48% to 58% who agree that illegal land clearing causes soil runoff into Laolao Bay.
BR	By June 2014, see an increase of landowners and residents who plant natives in their properties from a baseline of 27.9%.	27.9%	59.1%	 31.2pp	455 native trees given to 165 landowners.  Question number 8 of the Post KAP survey shows a statistically significant increase of 31.2% pp of landowners who plant natives.
BR	By June 2014, landowners and residents will be trained in erosion control practices from a baseline of 0.	0	28 (no percentage , based on number of participants).		28 landowners were certified and trained.  There is a statistically significant increase from 62% to 86.2% of landowners and residents who are

					<p>willing to attend a demonstration on erosion control practices.</p> <p>There is a statistically significant increase from 58.1% to 85.1% in the number of landowners and residents who are willing to attend an erosion control training.</p>
IC	By June 2014, landowners and residents who have talked to anyone (government officials) about applying erosion control measures on their properties will increase from a baseline of 0.3%.	0.3%	7.2%	 6.9pp	There was a statistically significant increase from 43% to 53.8% that landowners and residents trust environmental agencies for accurate and true information about the environment.
IC	By June 2014, landowners and residents who have talked to anyone (conservation volunteer) about applying erosion control measures on their properties will increase from a baseline of 0.3%.	0.3%	4.5%	 4.2pp	
IC	By June 2014, landowners and residents who have talked to anyone (government officials) about the impact of sedimentation on the entire watershed including coral reefs will increase from a baseline of 3.5%.	3.5%	8.3%	 4.8pp	
IC	By June 2014, landowners and residents who have talked to anyone (conservation volunteer) about the impact of sedimentation on the entire watershed including coral reefs will increase from a baseline of 2.5%.	2.5%	4.5%	 2.0pp	

A	By June 2014, landowners and residents will agree that it is important to implement erosion control practices in their properties will increase from a baseline of 46%.	46%	53.3%	 7.3pp	
A	By June 2014, landowners and residents agree that there should be more efforts to decrease the impact of sedimentation in the bay will increase from a baseline 24.8%.	24.8%	31.9%	 7.1pp	Question 15 of the Post KAP survey shows a statistically significant increase from 47.6% to 64.8% of landowners and residents who agree that sedimentation from within their property affects coral reefs.
K	By June 2014, landowners and residents will show an increase in their understanding that sedimentation is detrimental to Laolao Bay's coral reef health from a baseline of 16%.	16%	41.5%	 25.5pp	
K	By June 2014, landowners and residents will show a (PERCENT) increase in their knowledge of the importance of the Laolao Bay Watershed as a home for fish, wildlife and other species through information gained from the Laolao Bay Watershed Pride Campaign from a baseline of 85.1%.	85.1%	96.3%	 11.2pp	

## Campaign Impact:

*Purpose of section: Results on Stage of change is a good transition between data and how it relates to how close the target audience is to action/maintenance of behavior change. This will also become an important resource for planning future campaign activities and messages.*

## Conservation Impact [CR, TR, BC, BR]

### SITE THEORY OF CHANGE OUTCOMES

*Instructions: Write a summary narrative of your campaign impact that validate or contradict the KAP results, along with differences noticed between pre- and post- campaign qualitative results.*

As a result of these efforts, there has been a statistically significant increase (p-value= 0.000) in knowledge of the importance of the Laolao Bay Watershed as a home for fish, bird, and wildlife from 85.1% to 96.3%. This validates that landowners and residents understand the important functions of a healthy watershed. In addition, landowners have become aware of the potential impacts of their actions, and recognize the watershed threats that their land use may produce. KAP results show a statistically significant increase (p-value= 0.000) in their understanding that sedimentation is detrimental to Laolao Bay's coral reef health from 16 percent to 41.5 percent. This shows a 25.5 percent increase in understanding.

Results from qualitative analysis highlighted that several respondents had no knowledge of permit requirements for land clearing and had no knowledge of erosion control practices. Post KAP survey results show a statistically significant increase (p-value=0.000) of 7.3 in landowners and residents who agree that it is important to implement erosion control practices in their properties. Outcomes of the campaign also show a significant increase (p-value=0.000) of 46 percent of landowners and residents who recognize the threat of sedimentation surrounding the watershed and in response implement erosion control practices like planting trees and shrubs. In addition, significant increases of 38.2 percent of landowners and residents who also implemented erosion control practices like install lawn alternatives such as rain barrels and rain gardens.

Dialogue between community members was surprisingly low and this may have been because culturally the local people do not need to validate with one another before implementing any practices on their land. Out of all the options given of who they have talked to about erosion control practices we saw a statistically significant increase in dialogue with government officials from 0.3% to 7.2%. In addition, we also saw an increase in dialogue with conservation volunteers from 0.3% to 4.5%. Results suggest that the campaign has reached a significant number of landowners and have encouraged them to change their behaviors (a significant increase of 16.2 percent), and as a result reducing erosion threats the causes of erosion will have been reduced and the effects of sedimentation on the bay will halt or begin recovery.

### PROMOTING ENABLING CONDITIONS for CHANGE:

*Instructions: Write a summary of how your campaign has reduced threats by using evidence from field data (i.e. logbook, violation data), KAP data, and BR data (guardhouse, management plan, etc.). Any supporting documentation/data/picture to support this narrative is encouraged to include in the Appendices.*

**Overall Summary:**

The campaign continues the conservation efforts of the Laolao Bay Watershed restoration to restore the soil, reduce erosion and sedimentation, replant native forest, and improve coral reef health. In partnership with CNMI Forestry, one acre within the conservation area has been planted with native plants. To date, several hundred volunteers have helped to continue the planting and maintenance efforts of the Laolao Watershed. The activities were designed to continue these efforts at the Laolao revegetation site. The site has served as a demonstration site for students and the community alike. Watershed hikes and tree plantings were designed to showcase our continued efforts in restoring both the marine and terrestrial environment at Laolao. The learning objectives emphasized the threat of erosion and sedimentation and actions they can take to address these threats whether on their own homes or on public land. We emphasized on the importance of keeping vegetation in place.

**Field TR Data Summary:**

The campaign has continued efforts of reducing the threat of sedimentation at the site by regularly cleaning out the sediment chambers and continuing replanting of the Laolao badlands. In June 2013, 15 cubic yards of sediment was removed from the chamber and thus prevented from entering the bay. After a year of campaign barrier removal activities in the watershed, only 5 cubic yards of sediment was collected in July 2014.

The Bureau of Environmental and Coastal Quality's (BECQ) Water Quality Monitoring (WQM) program is an ongoing program in our agency in which the campaign worked closely with to identify threat reduction sites within the Laolao Watershed. Silt fences at two priority stream crossings were installed as advised by the WQM team to ensure we are preventing sediment at the source. Prior to the installation, 0.767 cubic yards of sediment had been cleaned out of the stream crossing. After two months, a measurement of 0.228 cubic yards of sediment was collected. This suggests the silt fences are working to prevent sediment from entering the bay.

According to BECQ's 2014 Water Quality Assessment Report, "water quality problems caused by stormwater runoff from Saipan's existing developed areas are more difficult to address. BECQ has made significant strides in the regulation of new developments through its One-Start permitting program and implementation of new design standards. Runoff from older developments, in particular paved road systems and unpaved coral roads, remains difficult to address and requires attention" (Commonwealth of the Northern Mariana Islands Integrated 305(b) and 303(d) Water Quality Assessment Report, 2014). With this ongoing monitoring program, data may highlight positive changes over time if campaign activities continue to sustain impact and promote behavior change. However, at the current time it is inconclusive. The campaign will continue to work closely with the WQM team to ensure sustainability and replication efforts in other priority watersheds are addressed. "In addition, continue to address objectives such as on-going training of local road crews to use better grading techniques; and assist with planning larger improvement projects such as regional sedimentation basins and other best management practices (BMP). Aside from funding, the campaign can help to convince the public, business community, and political leadership of the value of dedicating land for BMPs which has been the primary obstacle in implementing major improvements" (Commonwealth of the Northern Mariana Islands Integrated 305(b) and 303(d) Water Quality Assessment Report, 2014).

A land clearing of approximately one acre was identified as another critical source of sedimentation in the Laolao Watershed. To continue revegetation efforts, a total of 391 trees have been planted at the area by community members, school kids, and agency partners. In addition, maintenance of existing and newly planted trees is critical in ensuring tree survival and health.



**KAP Data Summary:**

Results from the Post KAP Survey highlight that 106 (26%) respondents out of 400 perceive that the threat of erosion has decreased by a large amount, but is still present (p value=0.000). This is a positive result as people's perception of the threat being reduced may be due to other conservation and restoration projects as well as this campaign.

**Site Capacity and governance summary:**

Barrier removal activities included an Erosion Control Training held on April 26, 2014 from 9 a.m. to 2 p.m. The training's objective was to raise awareness about their watershed, the threat of erosion in the Laolao Bay Watershed and solutions each landowner can do to prevent erosion within their own property. The training hosted a total of 10 landowners from the Laolao, Kagman, and Dandan Watershed. Each landowner was awarded with a certificate of participation, native trees, and campaign materials. The campaign materials included a water bottle, drawstring bag, rain garden manual, native plant guide, and erosion control and watershed fact sheets. This is something new our agency is looking to continue in other villages for residents alone.

The Division of Environmental Quality has introduced new regulations regarding erosion control. In their new regulations, any construction or development must have a certified and licensed erosion control inspector on site. All contractors and developers must also be certified before obtaining an earthmoving permit.

**BIOLOGICAL OUTCOME**

*Instructions:* Write a summary narrative of your campaign impact based on s, along with differences noticed between pre- and post- campaign qualitative results.

**Pre-campaign Biological Data**

Biological indicators for campaign indicate that site must maintain high levels of vegetative cover from a baseline of 98.5% and see a significant increase in tree diameter from a baseline of 1.66cm.

It is assumed that the effective implementation of campaign activities will lead to a reduction in threats at the site and improve and/or maintain conditions of key habitats and species. Baseline data is available from November 2012 (listed in the table below) and the post campaign biological data will be collected in November 2014 and the final in January 2015; and this report is expected to be updated at the time.

**BIOLOGICAL DATA SUMMARY:**

Indicator	Pre Results	Post Results	Percentage Change
Maintain low levels of barren soil/ maintaining high levels of vegetative cover.	Mean ground vegetation cover- 98.5%	Coming soon	Coming soon
Significant increase in tree diameter	Mean tree diameter- 1.66cm	Coming soon	Coming soon

## PART 2B: SOCIAL IMPACT

### Social Impact: [K, A, IC, BC]

#### BEHAVIOR CHANGE MOVEMENT OF TARGET AUDIENCE

*Instructions:* Complete the tables below based on data collected from your Pre-KAP survey and Post-KAP survey analysis. Provide a brief summary of your findings.

Pre KAP %	Stages of Behavior Change KAP Survey Question12: I am going to read 6 statements about whether or not you have used erosion control practices. I want you to then tell me which statement best represents you	Post KAP %	Change (Post-Pre)
85%	Pre-Contemplation Never thought about using erosion control practices	31.5%	-53.5%
7%	Contemplation Am considering application of erosion control practices but am not yet trained and have not talked to anyone about this	24.1%	17.1
5.1%	Preparation Have talked with some landowners and residents about erosion control practices but have not yet been trained	5.5%	.4%
1.9%	Validation Have been trained in erosion control practices and have talked to some of the landowners and residents about implementing erosion control practices	10.2%	8.2%
1%	Action Have started implementing erosion control practices	21.6%	20.6%
0%	Maintenance Have been implementing erosion control practices for the last 6 months	7.2%	7.2%

KAP Question #	Pre KAP %	Campaign Theory of Change Objectives	Post KAP %	Change (Post-Pre)
--	--	Pre-Contemplation	--	--
4	16%	Contemplation/Knowledge By June 2014, landowners and residents will show an increase in their understanding that sedimentation is detrimental to Laolao Bay's coral reef health.	41.5%	25.5%
15i	46%	Preparation/Attitude By June 2014, landowners and residents will agree that it is important to implement erosion control practices in their properties.	53.3%	7.2%
17	.3%	Validation/Interpersonal Communication By June 2014, landowners and residents who have talked to anyone [government officials for this statistic] about applying	7.2%	6.9%

		erosion control measures on their properties will increase.		
8	32%	Action/Behavior Change By June 2014, there will be an increase in landowners and residents who recognize the threat of sedimentation surrounding the watershed, and in response implement erosion control practices	78%	46%
--	--	Maintenance	--	--

### Summary of Behavior Change Trends:

The progress of movement seen in the two tables highlights that the target audience has moved progressively along the stages of behavior change from minimal/zero knowledge about erosion control practices (pre-contemplation) to actually implementing erosion control (action). The biggest jump observed, as indicated in first table is that the majority has moved away from pre-contemplation and have spread throughout the other stages. These results however still show a need to focus on 31.5% of the target audience in the pre-contemplation stage. Focusing on encouraging more interpersonal communication and community mobilization for this audience is essential to move them to maintenance. In addition, identifying key influencers and the 21.6% of the target audience in action can help with moving down the target audience in the pre-contemplation stage.

### ANALYSIS OF SOCIAL IMPACT

*Instructions:* In not more than 500 words, write a summary of your social impact with supporting evidence from your KAP results, your experience during campaign implementation, and anecdotes or qualitative research from the field.

The Laolao Bay Pride Campaign is committed to protecting what we love: the land, the ocean, and our way of life here on Saipan. The campaign is focused on reducing land-based sources of pollution through personal action and community collaboration. The goal of the campaign has been to positively affect the hearts and minds of our residents, to address practices on homeowners' properties which contribute significant amounts of sediment to the Laolao Bay Watershed. We realize that polluted runoff comes from sources beyond residential practices as well, including large developments, agricultural lands, and more, however this campaign focuses on residents and the community alone. It is envisioned that through collaborative community efforts with the involvement of the youth; larger and broader environmental challenges will then be easier to understand and addressed by our environmental organizations and the residents of Saipan.

The surrounding watershed has consequently been the focus of various erosion control and conservation efforts and campaigns. To augment and enhance ongoing projects, the Laolao Bay Pride Campaign focused on the children of this community through building a partnership with the San Vicente Elementary School. Information gathered from our pre-survey helped to define the content to be presented which included the value of the bay, the threats that surround the bay and the actions they can take. Campaign materials such as drawstring bags, water bottles, fact sheets, and pencils were given to over 500 students. These children helped to disseminate the materials in their homes and help communicate the key campaign messages to more people in the community. These materials helped to strengthen the pre-contemplation and contemplation stages of the campaign.

The increase in knowledge of campaign key messages by survey participants is encouraging. From the beginning of the campaign, it was clear that knowledge issues needed to be addressed in order to move landowners and land users from just knowing about erosion control to supporting it and finally implementing it (attitude and behavior). For instance, in the Pre-Campaign Survey, 16 percent of

respondents answered sedimentation when asked what a threat to the watershed was. In the Post-Campaign survey, that number increased to 41.5 percent. When coupled with the increase in respondents who answered that there should be more efforts to decrease the impact of sedimentation in the bay (from 24.8 percent in the Pre-Campaign Survey to 31.9 percent in the Post-Campaign Survey, or an increase of 7.1 percent), we can see a significant shift in survey respondent's knowledge of the threats surrounding the watershed.

As part of the campaign we also established a rain garden at San Vicente Elementary School (SVES) with the help of the SVES Young Farmers Club. The purpose of this garden is to serve as a demonstration site for how vegetation can be used to collect and slow down water flow for greater absorption into the soil, while adding to an area's aesthetics. The garden has received support from SVES as well as various community members. The rain garden, while an individual installation, created a greater opportunity to discuss erosion control issues within the watershed, and is an example of what individuals can do to get involved. Rain garden manuals were handed out to parents to show how such an installation can be a lawn alternative to their own yards. To further spark interest of the campaign, we worked closely with the SVES Young Farmers Club and showcased them in our commercial as recognition of their efforts. Through this partnership, the campaign was highlighted in every school event including their Canary Walkathon where our campaign mascot was asked to be present. At this event, there was a greater opportunity to have one on one dialogue with the target audience, distribute more campaign materials, native plants, plant guides and build a stronger relationship with this community. The campaign was successful in raising the awareness of survey respondents about the value of the Laolao Bay Watershed. The campaign exceeded the knowledge smart objectives. As a result of the campaign efforts, the community believed in applying simple erosion control practices on their land that the campaign promoted. Increases of 46 percent from a baseline of 32 percent of landowners and residents have started to apply erosion control practices like planting trees and shrubs on their properties. In addition, an increase of 38.2 percent from a baseline of 26.5 percent of landowners and residents has installed lawn alternatives like rain barrels and rain gardens. The community now believes that by reducing their land activities they can achieve simple actions for a healthy watershed and reef. Landowners and residents can now make the connection between land and sea, and that if they apply simple erosion control practices within their properties they are contributing to a healthier ocean and way of life. To sustain impact, the campaign will continue to work with landowners in the Laolao watershed and also work with replicating these efforts in the Garapan Watershed as there is still a lot of work to be done.

#### MATERIALS:

Refer to Appendix M and Appendix N for complete list of materials and photos, and Appendix G for results of Qualitative Research.

Top 3-5 Campaign Materials (most popular, most visible)	What was your objective for this material?	Feedback from campaign TA or community (based on anecdotes, personal experience). Did it work to meet your objective and if not, why?
Native Plant Guide (500 pcs.)	Make it easier for homeowners to start planting natives in their yards.	The native plant guide included the different types of native plants of the Mariana Islands that can be used for wildlife and ornamental use. The campaign's call to action was very clear in the guide. Also included in the guide was a listing of plants that can be used for disturbed or cleared

		<p>areas.</p> <p>The guide helped to increase the use of native plants within the community and island wide. There were many requests for copies of the guide even from the neighboring islands of Guam, Tinian, and Rota.</p>
Watershed Fact Sheets (1,600 pcs.)	Increase knowledge of watersheds, threats, and actions the community can take.	<p>Fact sheets were useful for the campaign and were distributed widely at all educational events and activities. The fact sheets were helpful to the community as it helps to communicate campaign's flagship species and the campaign's key conservation messages at the beginning of the campaign.</p> <p>The fact sheets complement the many different materials developed during the campaign. They were a very effective way to transmit information to the different audiences about the watershed facts and information.</p>
Campaign T-shirts (200 pcs.)	Increase knowledge of campaign message and branding.	<p>T-shirts are very popular in Saipan so there was a need to print this type of material for the target audience. This helped to spread the campaign brand. There were many compliments about the design of the shirt and because everyone loved the logo we made sure to have a large design of the logo at the back.</p> <p>There was also a need to print another order of shirts because of the high number of requests. The next print of t-shirts was developed midway through the campaign's implementation phase. This way, the target audiences was already familiar of the campaign branding and was more identified with it. T-shirts were distributed as awards every time a community member did something good for the environment or participated in a campaign activity.</p>
Bumper stickers	Increase knowledge and attitude of campaign targeted island wide.	<p>The bumper stickers helped to promote our conservation message and were designed to target the wider community. Various people thought the bumper stickers were well-designed and eye-catching placed on public transportation vehicles and private cars. This was a very effective way in spreading the campaign message from one place to another.</p>



Drawstring Bags	Increase behavior change and knowledge of specific actions.	This was a hot item on the list of campaign materials. This was distributed widely in all school visits and presentations. In addition, it was widely seen in the community. Parents of children who got the bag were seen using it at public events.
<b>ACTIVITIES:</b> Refer to Appendix M for complete list of activities.		
Top 3-5 Campaign Activities (most popular, most visible)	What was your objective for this activity?	Description of activity (include estimated attendance number, and stories of feedback from TA or community). Did it work to meet your objective and if not, why?
1. Collaborative Campaign Launch at Let's Move Marianas with Managaha Pride Campaign.	To introduce campaign to general public and youth.	Over 1000+ people were in attendance. Linking Human Health to Conservation at the "Let's Move Marianas" Expo On September 28th, 2013 at Saipan's "Let's Move Marianas! <i>Yenyung with the Kangung</i> " Expo, both the Laolao Bay Pride Campaign and the Managaha Sanctuary Pride Campaign closely collaborated to present our respective campaign messages and debut lovely Lulu. Both campaigns encouraged expo participants to not only have a healthy lifestyle but to work together to help create a healthier environment and increase public understanding about the impacts of human activities on ecosystem health and function. A 3-D display of a watershed model was presented at the launch to increase knowledge of watersheds and their importance.
2. Rain garden demo training	<p>To engage local students, parents and teachers in storm water management projects that protect Laolao Bay.</p> <p>To treat storm water runoff before it reaches the bay and affects marine life.</p>	Rain garden demo training was implemented during the campaign. The event was held at the end of the school day. Treats over 300 cubic feet of storm water runoff, recognizing the threat reduction for Laolao Bay. Fifteen students assisted with installation. Rain garden manuals distributed to 50+ parents to help with home rain gardens. Feedback was overall positive, with most consistent being interest and openness to try recreate in their own homes.
3. Native Tree Giveaway	Provide knowledge and free native plants which is convenient erosion control option for homeowners and schools.	Over 165 landowners showed up to pick up their free native trees. Many were excited to pick up native trees to plant in their yards and farms. About 455 plants were given at this event along with campaign materials. The native plant giveaway was held right in the heart of the San Vicente village, which made it easier for landowners to swing by and pick up their free

		plants. One landowner who happened to be the former principal of San Vicente Elementary school in the 90's was very happy to see the Saipan Golden White Eye as a flagship species for the campaign. The same species he chose for the school's mascot.
4. Agriculture Fair	Provide knowledge and demonstration on the threat of sedimentation to a wider community.	Booth display at fair with an educational watershed 3D model and a soil demonstration model demonstrating effects of sedimentation as well as campaign swag for community members who expressed their Laolao Bay pride. Over a 1000+ people were in attendance at the fair including key influencers, farmers, children and adults. The campaign presence at the fair was to build support for environmental restoration work and Laolao Bay Pride Campaign. The more people know and become aware of biodiversity and conservation issues, the more likely they are to conserve and promote conservation. This activity added identity to our agency and campaign.
5. Liberation Day Parade	Spread campaign branding island wide.	Objective of the campaign was to increase awareness and create a marketing buzz to the wider Saipan community. This was a great opportunity to present both campaigns and showcase our mascots.

### Capacity:

#### CAMPAIGN MANAGER

1. I have recently assumed the position of Coral Reef Initiative Education and Outreach Coordinator working under the Division of Coastal Resource Management. With the new title, I am able to continue my role as Laolao Bay Pride Campaign Manager as well as apply pride methods in my new role as CRI Education and Outreach Coordinator. I am excited to take the Coral Reef Initiative branding to the next level using the new skills and capacity I have gained through Rare to communicate the importance of protecting and preserving CNMI's coral reef ecosystems and ensure responsible management of our resources.
2. As a result of the campaign, our agency can now employ several strategies for social change. Replicating the efforts of the Laolao Bay Pride Campaign, the Bureau of Environmental and Coastal Quality can now apply the strategies and research to other priority watersheds and conservation areas. The campaign manager will be able to train and build capacity within the agency by offering hands-on training in the design of conservation education and social marketing strategies targeting behavior change. Participants will learn principles of designing behavior change programs and gain skills in utilizing participatory assessment tools.

## PART 3: LESSON LEARNED

### Research and process/planning

Lessons learned around research and process or planning could potentially reference the KAP survey process, analyzing and sharing your results.

Bright Spot	What did you learn from this experience and why is it a bright spot?
Key Informant Interviews	Key informant interviews provide valuable insight from high level officials or community members of what their involvement or interest maybe about the site. It can help identify other key influencers in the process and also identify what they think is important to focus on. For key informant interviews, we selected the Mayor of Saipan as a key informant for the campaign as he was identified by colleagues as someone who could give me insight to community level information in the area. Through my interviews I found out that he was a landowner at Laolao and this was something that was important to him. The area where our revegetation site is located is actually his land. He admitted to clearing the land without proper erosion control, but is now part of the CNMI Forest Stewardship program and is allowing us to continue our efforts.
In-depth interviews	This experience allowed for one on one dialogue with the target audience. It helped to reveal the target audience's inner feelings about why they think and do what they do. It opened up opportunities for building partnerships and gain insight on making key decisions for the campaign. The individual nature allowed me to collect perspectives unfettered by the dynamics of having other people, who have influence over the individual from clouding the answers. This provided a lot of detailed information about the target audience's behavior and perceptions. A bright spot of the in-depth interviews helped to identify the gaps and barriers to change of the target audience.
Post- KAP Survey	For the Post-KAP survey, to assure we get the best surveys conducted and on schedule we identified key coordinators for the survey process. Since I had two coral reef interns for the summer, I had KAP surveys become their summer project. Part of their project was to make sure they recruited responsible enumerators and helped to train them. Training these two individuals in-depth was essential to having a successful enumerator team. They were able to train four other enumerators and successfully complete 400 surveys.
Challenge	Solution and how you address if there was not a solution?
Focus Group	The challenge of planning a focus group was identifying key landowners to participate in the focus group. In addition, my position as a regulatory agency made it difficult to conduct the focus group. We hired a PR firm to conduct the focus group to ensure participants would answer truthfully. For future focus groups that our government agency may need to do, we will work with the Micronesia Islands Nature Alliance (NGO) to conduct the discussion and recruit participants.
Observational research	This was difficult to conduct as the target audiences were private landowners. In Saipan, landowners are very "private" about their land and way of life. You would be considered trespassing if you were to just go into

	someone's land. Permission is needed to do this type of research. A solution to this challenge was identifying a family member to conduct the observational research.
KAP Surveys	<p>For the Pre-KAP survey, it was important to identify and recruit enumerators early on so that you can properly train and assure they are committed to conducting the surveys. I had initially recruited college students who would earn volunteer hours to conduct the surveys. However, this did not work out well. As a solution, we identified the MINA Tasi Watch Rangers and offered stipends to carry out the project.</p> <p>Learning from the Pre-KAP Survey it is important to recruit more enumerators if needed. In addition, coordinate with community and have dates announced ahead of time. Lastly, assure your enumerators are prepared, well dressed, and have all surveys printed ahead of time .</p>

## Social Marketing (SM)

Lessons learned around social marketing could potentially include creating and displaying your message, using your mascot in the community, designing and ensuring that your social marketing materials reach your target audience.

Bright Spot	What did you learn from this experience and why is it a bright spot?
Campaign Launch	Whatever opportunity comes your way to introduce your campaign, take it. I saw an opportunity to do a soft launch at our Government Labor Day picnic because I knew that not only government workers with their families would be present, but that all the high level officials and key influencers would be at this event. To recognize that our agency was the implementing partner for the campaign each staff including our administrator wore the campaign t-shirt to stand out at the event. The following week we had a bigger launch at the Let's Move Marianas Expo which had more of a younger audience. At this launch we presented our mascot and she was a big hit for the Expo.
Radio PSAs	Only 3,800 of the 17,000 households have cable TV in their homes so radio PSAs were very effective in reaching the target audience as well as the community's island wide. The radio PSA's helped to get participants for the Erosion Control Training. Participants said they heard about signing up through the radio. In addition, many community members loved ads on the value of trees and the threat of soil erosion. This may have played a part in the high requests for tree plantings.
Campaign Facebook Page	The campaign Facebook page launched September 2013 with only a 100 likes and has gained over a 1,225 likes over the progress of the campaign. The page helped to keep community members and students informed about campaign activities and highlight the successes of the campaign. Other Facebook pages like the One Micronesia Page, the CNMI Micronesia Challenge page, Micronesia Bird Conservation page, and the CNMI Marine Monitoring page have shared many of our campaign posts reaching a wider audience.
School Visits	Campaign focused school visits were one of the most rewarding experiences. It was one of the activities that I had to do throughout several weeks if not months of the campaign. After visiting one school, the campaign was getting more and more request for presentations. Using the mascot as a special guest for the students made the presentations more interactive and fun. In

	<p>addition, it helped to inform the students of the importance of the flagship species. School visits opened the door for the campaign to meet a captive audience one on one. It also was a great way to finally distribute campaign materials. Over 6000 giveaways were distributed through school visits. I used the school visits as a way to also advertise our campaign activities. This way children can inform their parents.</p>
Letter Writing	<p>This was a great activity to measure the effectiveness of the presentation and mascot. During school visits, we always asked the children to write letters to the mascot. Through this activity, children were able tell Lulu whether they enjoyed the visit, what they plan to do to help the environment and if they want the mascot to come back. The number of letters received and their contents are very good indicators of the level of acceptance of the mascot among the target audience. The letters also helped to determine if the message was clear enough.</p>
Micronesia Challenge Commercial	<p>Although only a number of households have television, a TV commercial was the most cost-effective way to reach large numbers of people. The commercial was not only able to increase awareness and dialogue, but also the goals of the Micronesia Challenge. It is important to go through a vendor who can clearly communicate your campaign.</p>
Mural Painting	<p>Murals are a good way to display creative, enthusiastic and simple educational messages that appeal to your target audience. Murals are not expensive and can be very effective for a Pride campaign. Location of the mural is important to consider assuring it is visible for the target audience. In addition, selecting a good artist is important if you want high quality work done. Our campaign mural was painted during the latter part of the campaign, but this was helpful in reinforcing and sustaining the campaign messages. Also, the mural helped to strengthen the campaign's messages by reinforcing the "Protect our Sea, Plant a Tree" message.</p> <p>Murals are highly effective because they have a life span of one to three years, and they are very noticeable when placed in a prominent location.</p>
Challenge	<p><b>Solution and how you address if there was not a solution?</b></p>
Campaign Logo	<p>The campaign logo was one of the most challenging to develop. I went through three different graphic artists to get the right design. Instead of working directly with the artist I worked with the President of the company who was able to clearly communicate the style and design to the graphic artist. After several pre-tests with the target audience it helped to validate the final design. Pre-testing the logo and branding is crucial in developing your brand and logo. I highly suggest anyone developing a brand assures they get it pre-tested by the community. In addition, having a clearly written creative brief is important for the vendor. In some cases, if your graphic artist doesn't speak English communicate it with their supervisor or manager.</p>
Campaign materials	<p>Sticking to one graphic designer is critical to the success of your campaign materials design. Other vendors can change the style or font of your branding that can make your materials ineffective. It is very important that you try to stick with one graphic designer. Make sure to provide other vendors with camera ready designs to keep your branding consistent.</p>



## Barrier Removal (BR)

Lessons learned around Barrier Removal could include increasing governance at your site, creating effective Barrier Removal strategies, and dealing with enforcement issues.

Bright Spot	What did you learn from this experience and why is it a bright spot?
Rain Garden Installation	This was a great way to build partnership with the targeted community and involve the kids in the planting and demonstration of a rain garden. A demonstration that can be easily adopted on their own properties. Fifteen students from the Young Farmers Club attended the installation and have now adopted the rain garden as their own. They take care of maintenance of the garden. To ensure the audience had a take away, we distributed over 80 rain garden manuals to parents and also watershed fact sheets. The rain garden manuals offered step by step guidance and also provided our agency's contact number for free technical assistance.
Tree plantings in the revegetation area.	This activity can be used for all ages. It's a great activity when teaching kids about the importance of intact native vegetation and the effects of land clearing. Tree plantings provide an opportunity to not only learn about the benefits of trees, but learn about the different native trees from Saipan. With all the tree plantings, we also distributed campaign swag so that there was something kids can bring home and share with their families.
Native Plant Distribution	This was a great benefits exchange for the community. Many community members were excited about the variety of native trees being offered to them. Some they rarely see around the island. Not only did we distribute trees we also gave out campaign materials so that they were informed about the objectives and goals of the campaign. Everyone loved the native plant guides.
Challenge	Solution and how you address if there was not a solution?
Erosion control training	Encouraging landowners to participate in the training was a challenge. This was also due to competing community events. Heavily advertising in the newspaper and radio helped to gain participants for the training. This training is definitely something our agency wants to continue for Phase 2. This is a good activity to foster a relationship with landowners and address any concerns they have regarding any permits. This is also something we are looking to replicate in other villages. In addition, we want to make sure we have key staff to conduct the trainings and less of an authority figure from our agency conduct the training. This way landowners are comfortable asking any questions they have regarding regulations.

## Mobilizing your community

Lessons learned around mobilizing your community could include engaging your target audience as well as internal and external partners, as well as working with and managing a campaign team.

Bright Spot	What did you learn from this experience and why is it a bright spot?
Farmers Market Outreach	It was important to consider which events are popular within the community, island wide. The Farmers market held every Saturday was a great opportunity to do outreach. This was a great place to distribute not only our fact sheets, but other campaign materials. It was also an opportunity to integrate barrier removal tools like free plants in these social marketing events. Through my qualitative research and KAP survey, I found that the audience and community had very little to no knowledge of the term

	<p>“watershed” and the threats that surround our watersheds. This helped to identify and prepare content that was focused on these two very subjects. I made sure to have an interactive display of a 3D watershed model that demonstrated the effects of land-based sources of pollution that children and adults were able to participate in. In addition, I built a soil demonstration models which also helped to capture the attention of many landowners. This demonstration gave clear demonstration on the effects of surface runoff. It also displayed the different types of permeability and infiltration.</p>
Halloween Trunk or Treat Competition	<p>This event was perfect for the mascots to be present. Our agency won first place in the trunk or treat competition. The competition required using natural materials and the theme was “Legends of the Marianas”. We were able to directly tie this to our endemic flagship species of the Saipan Golden White-Eye. Our trunk had invasive vines and the spiritual “taotaomona” tree that communicated our campaign message of planting natives to keep our natural heritage. The lovely Lulu was a hit at the event. Hundreds of people wanted a photo with her. Lulu helped to hand out treats while also handing out her campaign materials.</p>
Parade of Floats	<p>Christmas in the Marianas parade was a great way to showcase our mascot in the parade. The spirit during the holiday season is very warm and joyful in the islands that I saw this as an opportunity to feature Lulu in the Christmas float in collaboration with the Girl Scouts CNMI. I would recommend doing another parade if it was done in the village or another route. The route we took was in the tourist district so most of the audiences were tourists more than locals.</p>
Liberation Day Parade	<p>The liberation day parade honored the past mayors of the CNMI and because a lot of the mayors were known for beautification of the islands we thought it was important to showcase our conservation campaigns. This helped to give identity of not only the Micronesia Challenge, but both conservation campaigns. The presence of Primo, Lulu, and Managaha Manny made the community very excited. We also featured our Coral Reef Interns who helped to pass out campaign materials to the community.</p>
Environmental Expo	<p>The 2014 Environmental Expo was held at American Memorial Park in Saipan in partnership with the National Park Service on April 23, 24 and 25, 2014 from 8 a.m. to 2 p.m. Local media, including the <i>Saipan Tribune</i> and <i>Marianas Variety</i>, covered the event. The Expo’s objective was to raise awareness about the environment, and introduce students to organizations on island that protect the CNMI’s natural resources. The three-day environmental expo held annually by my agency was a great event to have a campaign focused booth. The 2014 Expo hosted a total of more than 1,416 elementary students. These students came from all schools with 4th and 5th grade classes on Saipan. 95 high school students from public and private schools also participated as volunteer group leaders. This was a new, positive addition to the 2013 Expo that we chose to replicate. This helped to reinforce my campaign message to all the school visits I had conducted in the previous months. The students I visited in the San Vicente and Kagman schools were seen using the campaign drawstring bags at the EXPO, which was really nice to see. Many of the students kept coming back to the campaign booth because they were so familiar and closely tied to the campaign. It showed a sense of pride they had for the campaign and for</p>

	Laolao Bay.
Agriculture Fair	The biggest event of May for farmers was the perfect event to demonstrate the effects of sedimentation on our reefs and promote the use of native plants. We had a soil demonstration model that had three different types of yards (green pasture, bare soil, and pavement). This model clearly demonstrated to landowners the difference in surface runoff and permeability. This type of interactive display affected the minds and hearts of the community, opening up doors to adopt the new behavior of planting trees. They learned about the value of the watershed, the threats, and provided ideas as to how they can help protect the watershed. It also encouraged them to adopt conservation practices.
Challenge	Solution and how you address if there was not a solution?
Laolao Watershed Hikes	Although this was a free hike and upon request, this was a problem for public school students to participate. Transportation was a big problem as well as permission from the board of education to approve since it required hiking up to the watershed. However, we still were able to work with the private schools and summer programs to make it a success. We had over five watershed hikes and tree plantings at the Laolao Revegetation site. For this next year, I have included in my proposal to include bus rental so that public schools can avail of the field trips. We worked closely with the San Vicente Elementary School sixth grade class to get them to do their end of the year field trip to Laolao. Since their school is of walking distance from the Laolao Beach area, we coordinated with them to do a beach cleanup and tree planting in the coastal area. Although, they could not do the watershed hike we were happy to accommodate them with a hike from their school to the beach area.

## Work Planning

Lessons learned could include writing and adapting your work plan to new information as well as managing your finances, budget for your campaign, and time management.

Bright Spot	What did you learn from this experience and why is it a bright spot?
Work Plan as a Tool	The work plan helped to consolidate and organize activities for each wave. It was a great tool at capturing each event planned for the month. In addition, it was something I could share with my colleagues and supervisors. Through work planning, it helps me to adaptively manage my campaign. For example, during the last phase of my campaign I went through my work plan and realized I had planned to do a mural painting in my second wave. Because I forgot about it, it reminded me that I still had time to do the mural planning in my third phase. The work plan can definitely be adopted in my other projects as an education coordinator.
Expense reports	This type of reporting helped me to manage my funds accordingly and avoid any discrepancies. For every expense, I made it a point to enter it right away in the expense report. This tool can also be adopted for other grants that I manage.
Challenge	Solution and how you address if there was not a solution?
Time management	Because I had duties other than campaign responsibilities, I had to integrate the work I was already doing with campaign objectives. Any event I had to be

	present for with the Coral Reef Initiative, I found a way to communicate the Laolao Bay Pride Campaign and Micronesia Challenge. I also made sure to seek help from other colleagues.
Fiscal Agent	It is always good to establish a payment process to get your vendors paid with your fiscal agent. The fiscal agent and I had an agreement that payment vouchers must always be submitted no later than Tuesday. This process worked well for me. In addition, making sure you have supporting and complete documents with every payment voucher is important. I also made sure to meet with the accountant every Wednesday to assure there were no discrepancies with the accounts.

### Key Stakeholder and Partner Engagement:

Lessons learned could include engaging partners and key stakeholders, leveraging strategic or donor partners.

Bright Spot	What did you learn from this experience and why is it a bright spot?
CNMI Forestry	Part of the campaign was to promote the use of native trees in the watershed. It was important to collaborate with our local forestry agency as this was a part of their goals as well. This partnership proved to be successful for the campaign as they helped to propagate native plants for our community tree plantings. They also offered technical support for the types of native plants we should promote. For phase 2, because of the strong partnership with this agency it is important to keep them informed and involved with the planning and implementation. They have always supplied plants for our rain gardens. Keeping them informed ahead of time will be important so they have ample time to propagate the plants needed for the gardens.
San Vicente Elementary School	The heart of the Laolao Bay Watershed is the village elementary school of San Vicente. So much pride lies within San Vicente Elementary School, as so many residents in the area attended this school. It was important to build a partnership with this school and engage them in stormwater management. The stormwater in San Vicente ends up in Laolao Bay. This rain garden installation helped to slow down and clean polluted stormwater. For Phase 2, we would like to continue to work closely with the Young Farmers Cub. Having them involved with our rain garden installations will keep them engaged and excited about not only projects within school grounds, but projects outside of school. This will give them more recognition in the great work that they do. In addition, the campaign has nominated them for the MINA's environmental award that will be presented to them at this year's Green Gala Event. This is an appreciation for the continued partnership.
Watershed Working Group	The Watershed Working Group is made up of key people from different agencies. Throughout the campaign, I was able to share my challenges and successes with this group. It was important to keep them informed as they offered valuable insight and technical expertise throughout the campaign. This group of individuals will be essential in implementing Phase 2 of the campaign as their technical expertise will be needed in all aspects of sustaining impact of the campaign and replication efforts.
Challenge	Solution and how you address if there was not a solution?
Partnerships and	Partnerships overall can be a challenge. It is important to keep them well

engaging stakeholders	informed and involved in any project. Make sure to be clear in your objectives and make sure it is aligned with their objectives. Always keep them inform and involved.
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## PART 4: PHASE 2 for PRIDE MICRONESIA

### Sustainability Vision

*Instructions:* Please draft **no more** than **three** paragraphs a summary of your sustainability goals and strategy for achieving these goals. Be sure to include the following elements:

1. What has been achieved in your campaign
- 2) What else needed to be done
- 3) What is your strategy (i.e. going deep, going wide, replication, or combination of both or three strategies)
- 4) include a benefit exchange and
- 5) propose alignment with ongoing programs at organization and other island/regional initiatives

The Laolao Bay Pride Campaign has increased knowledge in the villages of Laolao, Kagman, and Dandan. Results from the campaign highlight that through the campaign's outreach and education efforts landowners and residents know the threat of sedimentation and in response have started to implement erosion control practices such as planting natives and install lawn alternatives such as rain barrels to reduce their water runoff.

However, there is still a need to increase behavior change in the adjacent watersheds of Dandan and Kagman by focusing on individual and willing landowners to implement further erosion control practices. In addition, these efforts will also dive deeper and wider through replication in the Garapan Watershed. The strategy for Phase 2 will be to dive deeper into implementing best management practices on individual homeowner's properties. The threat reduction will be to reduce pollutants in surface water runoff. In order to achieve this, the campaign will continue to work with residences and businesses to promote better landscaping practices such as rain gardens and installation of rain barrels.

The benefit exchange will be to identify willing landowners, community groups, schools or businesses to implement erosion control practices and in return they will get free training and a free rain garden in their yard. As a result, long term benefits include the reduction of pollutants entering the ocean, protect their yard from water damage and reduce erosion, channel water where they want it: to plants and trees, attract beneficial insects and birds to their property, and enhance the beauty of your yard.

This will complement the existing Laolao Bay Pride Campaign with taking a step further into doing a yard project in priority watersheds. Both watersheds are priority watersheds of the CNMI and can be pilot projects for the wider CNMI.

The campaign manager will also train the watershed coordinator to use pride methods in designing a similar campaign in the Garapan Watershed. Depending on what the threat the campaign team decides to address, we can identify the target audience and behavior change for this campaign.



**Phase 2 ToC- Going Deeper (Laolao Bay Pride Campaign) and can be adopted for Replication in the Garapan Watershed.**

<b>5ca</b>	<b>5b</b>	<b>5a</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
<b><i>Knowledge is needed to increase awareness and help shift these attitudes</i></b>	<b><i>Attitudes needed to increase behaviors</i></b>	<b><i>Conversations needed to encourage people to adopt the new behavior?</i></b>	<b><i>Barriers needed to be removed to make it easier for community to adopt a new behavior</i></b>	<b><i>Behaviors that must be changed in order to reduce this threat</i></b>	<b><i>Threats need to be reduced in order to achieve the conservation results</i></b>	<b><i>Conservation results in the campaign seeking to achieve?</i></b>
Landowners and residents understand the importance of their watershed, its function, and the natural and anthropogenic activities that cause polluted runoff affecting reef health.	Target audience (Possible target audience: private landowners ("I don't care" and "I don't know"), should believe that through adopting stormwater management they can reduce polluted runoff for the benefit of a healthy watershed.	Increased discussions among community members about the benefits of a healthy watershed, the issue of storm water runoff and the health of our near shore waters.	Target audience is provided with the tools and knowledge to adopt storm water best management practices such as rain gardens.  Trainings will be provided to landowners, community groups, schools and businesses in Laolao and Garapan Watershed. This will include the villages Dandan, Kagman, Papago, San Vicente, Chinatown, Navy Hill, and Garapan.	Target audience knows the threat surrounding the watershed and reduces their runoff by planting natives on bare areas, install lawn alternatives like rain barrels and rain gardens.	Reduce the amount of pollutants entering the sea.	Improved water quality

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### Implementation Plan

*Instructions:* Please draft **no more** than **two** paragraphs that capture how you plan to implement this strategy, including staffing structure, overall timeline, and main social marketing and technical milestones/achievements for implementation of Phase 2.

Implementation of this strategy will be done by the campaign manager with assistance of a campaign team (approved by Fran Castro). Technical expertise from NOAA and implementing agency is necessary to achieve above theory of change. Encouraging participation by the watershed working group to help implement a rain garden program for homeowners will be critical in the success of Phase 2.

Phase 2 will offer six applicants the opportunity to receive materials and technical support to install a rain garden on their property. Awardees will become a part of a new Rain Garden team. This team will be designed to support one another's efforts to meet goals and help reduce polluted runoff. Eligible applicants include homeowners, community groups, businesses, or schools within the watersheds of Laolao and Garapan (adopted from West Maui Kumuwai Watershed Rain Garden challenge).

### Work plan & Budget

*Instructions:* Complete below a summary of the main key activities and total budget needed for your implementation. Actual work plan and **detail budget are required to be filled in details**, but can be placed in the appendices.

Work plan and budget guideline:

1. Year 3 waves (3 waves to total for 2015)
2. Can be more vague in year 4-5 year

#### Work Plan and Budget Summary:

Wave (FY 2015)	Key Activities /Milestones	Total Budget (total per wave)
1 <sup>st</sup> (Jan-March)	1. Develop rain garden team 2. Meet with Watershed Working Group 3. Meet with community groups 4. Conduct presentations at PTA meetings 5. Meet with neighborhood watch representatives to see if they would like to be a part of this challenge. 6. Establish a long term community partnership to work on watershed projects and maintenance activities. 7. Design rain garden yard project 8. Identify areas in watershed for rain garden implementation (both public and private) 9. Design rain garden materials to compliment "Protect our Sea, Plant a Tree" campaign. 10. Reprint Rain Garden Manuals	\$2,000

<b>2<sup>nd</sup> (April-June)</b>	<ol style="list-style-type: none"> <li>1. Identify willing landowners to participate in rain garden challenge</li> <li>2. Launch rain garden project/challenge</li> <li>3. Reinforce SM/BR activities</li> <li>4. SM materials for rain garden</li> <li>5. Use media to promote rain garden yard project</li> <li>6. Install rain gardens</li> </ol>	\$7,000
<b>3<sup>rd</sup> (July-September)</b>	<ol style="list-style-type: none"> <li>1. Final SM/BR close out</li> <li>2. Final recognition of rain garden team and homeowners</li> <li>3. Rain Garden celebration with homeowners</li> <li>4. Recognize rain garden projects in media</li> </ol>	\$1,000

### SWOT for Implementation:

*Instructions:* List below key strengths, weakness/challenges, opportunities, and threats for implementation of your Phase 2.

<p><b>Strengths</b></p> <ul style="list-style-type: none"> <li>• Strong partnership with San Vicente Elementary school and community</li> <li>• Recognizable branding (based on existing qualitative and quantitative research)</li> <li>• Trained staff/capacity within implementing agency and partners</li> </ul> <p>(Internal Agency Strength, Laolao Bay Management Plan)</p> <ul style="list-style-type: none"> <li>• Lots of information &amp; data</li> <li>• Lots of technical capacity</li> <li>• Existing Local Action Strategy/ revegetation efforts</li> <li>• Support from directors</li> <li>• Team has shared vision</li> </ul>	<p><b>Weakness</b></p> <ul style="list-style-type: none"> <li>• Need supporting campaign team</li> <li>• Need to identify willing landowners</li> </ul> <p>(Internal Agency Weaknesses, Laolao Bay Management Plan)</p> <ul style="list-style-type: none"> <li>• Capacity- lack of personnel to implement, enforce, funding</li> <li>• No designated leadership (at all levels) Hard to get agreement</li> <li>• Loose “community” diverse interests</li> <li>• Multiple large scale threats (reforestation user conflicts, road improvement)</li> <li>• No opportunities for community volunteers</li> <li>• Most of land is private</li> </ul>
<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Replication for other priority watersheds</li> <li>• Replication for other villages/communities</li> <li>• Build community cohesiveness</li> <li>• Build partnerships with other organizations</li> </ul>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>• Competing community projects (i.e. neighborhood watch task force focused on crime in the villages).</li> <li>• Competing priorities for village representatives</li> <li>• Off-island ownerships of land</li> </ul>

<ul style="list-style-type: none"> <li>• Build capacity within agency</li> <li>• Develop other interests in building rain gardens on public land</li> </ul>	
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## Ensuring Success

*Instructions:* Please provide no more than 3-4 paragraphs on key recommendations based on your lessons learned to ensure the success of Phase 2, including what are the essential support needed from your organization, implementing team, and yourself.

1. Key Recommendations for Implementing Team.
2. Key Recommendations for Implementing Institution/Agency.
3. Recommendation for Project Manager/Campaign Manager/Yourself.

Implementing team must be committed to project goals and have a shared vision. Implementing team must decide on campaign objectives and keep community informed. There must be a consistent monitoring and evaluation for the project. Additionally, the nature of the project requires in-depth planning with implementing team and partners.

Implementing agency must take the lead in project implementation and engage other partner agencies. Agency must designate staff's time to commit to project. This project will assist in providing information of the impacts of erosion control projects, necessary to improve the habitat of coral reefs and specifically the ability of coral reefs to reproduce from improved water quality of run-off. The data collected during through this project will provide evidence of the effects of land-based sources of pollution on CNMI's marine resources. This will allow us to gain support for the land based management necessary to decrease this effect. Baseline data will also allow us to determine the effectiveness of land based erosion control programs and recommend improvements.

Campaign Manager must assure effective planning and design prior to implementation. Approval at all levels of authority is needed before planning. Identifying key staff to participate in project is necessary before moving forward. Commitment at all levels of the project is important to ensure success of implementation.

## Bibliography

Hermann, K & Gambhos, M. (2009). *CNMI Laolao Bay Conservation Action Plan*.

Bearden C., et al. (2014). *Commonwealth of the Northern Mariana Islands Integrated 305(b) and 303(d) Water Quality Assessment Report*. Bureau of Environmental and Coastal Quality, Saipan. 126pp.